

Please cancel Claims 14-37 as being drawn to a nonelected invention.

Please amend Claim 1 to read follows. (A "marked-up" version of Claim 1 appears in an appendix.)

- 1       **1.**       (once amended) A method for assaying angiogenesis *ex vivo*, said method  
2       comprising the steps of:
- 3       **(a)**       embedding a three-dimensional mammalian tissue sample in a matrix,  
4       wherein the tissue sample has at least one cut surface exposing blood  
5       vessels; wherein the three-dimensional tissue sample comprises multiple  
6       layers of cells comprising blood vessels and other cells of the tissue; and  
7       wherein the architecture of the tissue sample, including blood vessels,  
8       supportive stromal elements, neural cells, and endothelial cells, is  
9       substantially intact and has not been disrupted as compared to that of  
10      comparable tissue *in vivo*; and wherein the three-dimensional tissue sample  
11      does not consist of an isolated artery or an isolated vein;
- 12      **(b)**       supplying to the embedded tissue sample a medium that supports the growth  
13      of the tissue sample;
- 14      **(c)**       incubating the embedded tissue sample in the medium for a time sufficient  
15      to allow angiogenic vessels, if any, to grow into the matrix surrounding the  
16      tissue sample; and
- 17      **(d)**       observing or measuring the angiogenic vessels, if any, that grow into the  
18      matrix surrounding the tissue sample.

Please add new Claims 38-41:

1           **38.**   (new) A method as recited in Claim 1, wherein the tissue sample is a  
2   sample taken from a tumor; and wherein said method additionally comprises the  
3   step of supplying an angiogenic suppression factor to the embedded tumor sample,  
4   and measuring the difference in angiogenesis for the tumor sample as compared  
5   to the angiogenesis of an otherwise identical and otherwise identically-treated  
6   control tumor sample that is not supplied with the factor; whereby the measured  
7   difference in angiogenesis between the samples is a measure of the angiogenic  
8   suppression characteristics of the supplied factor against the tumor from which the  
9   sample was taken.

1           **39.**   (new) A method as recited in Claim 1, wherein said method  
2   additionally comprises the step of supplying an angiogenic stimulation factor to the  
3   embedded tissue sample, and measuring the difference in angiogenesis for the  
4   tissue sample as compared to the angiogenesis of an otherwise identical and  
5   otherwise identically-treated control tissue sample that is not supplied with the  
6   factor; whereby the measured difference in angiogenesis between the samples is  
7   a measure of the angiogenic stimulation characteristics of the supplied factor for the  
8   tissue from which the sample was taken.

1           **40.**   (new) A method as recited in Claim 39, wherein the tissue sample is  
2   selected from the group consisting of tissue from a wound, cardiac muscle tissue,  
3   skeletal muscle tissue, a transplanted tissue, thyroid tissue, parathyroid tissue,  
4   pancreatic tissue, pituitary tissue, adrenal tissue, pancreatic tissue, kidney tissue,  
5   liver tissue, skin tissue, prostate tissue, and retinal tissue.

1           **41.**   (new) A method as recited in Claim 40, wherein the tissue sample is  
2   cardiac muscle tissue.